

IN THE CLAIMS:

Please amend Claims 1, 9 and 17 as follows. Please cancel Claims 8, 16 and 24 without prejudice or disclaimer of subject matter. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) A method of enabling a selection of a program for viewing in a television system, the method comprising the steps of:

recording attributes associated with each program selected by a user in the television system, said attributes comprising first attributes associated with characteristics of said programs and second attributes associated with the user at a time the programs are selected, wherein said first attributes are made available as Electronic Program Guide (EPG) data;

forming sets of said attributes in response to said user selecting at least two of said programs having shared attributes, wherein each of said sets ~~comprise~~ comprises at least two of said attributes; and

upon entry of a user request for a program recommendation, performing a search for programs with attributes that include all the attributes of at least one of said sets, and notifying said user of an availability of programs that include all the attributes of at least one of said sets as program recommendations.

2. (Cancelled)

3. (Previously Presented) A method according to claim 1, wherein said second attributes include a mood being experienced by said user.

4. (Previously Presented) A method according to claim 1, wherein said program recommendations are based on the programs with the greatest number of attributes included in said sets.

5. (Cancelled)

6. (Previously Presented) A method according to claim 70, wherein said program recommendations are further based on the programs with the greatest number of attributes included in said sets.

7 to 8. (Cancelled)

9. (Currently Amended) A recommendation system for enabling a selection of a program for viewing in a television system, the recommendation system comprising:

memory means for recording attributes associated with each program selected by a user in the television system, said attributes comprising first attributes associated with characteristics of said programs and second attributes associated with the user at a time the programs are selected, wherein said first attributes are made available as Electronic Program Guide (EPG) data;

processing means for forming sets of said attributes in response to said user selecting at least two of said programs having shared attributes, wherein each of said sets comprise comprises at least two of said attributes;

searching means for performing a search for programs with attributes that include all attributes of at least one of said sets; and

on-screen display means for notifying said user of an availability of programs that include all the attributes of at least one of said sets as program recommendations upon entry of a user request for program recommendations.

10. (Cancelled)

11. (Previously Presented) A recommendation system according to claim 9, wherein said second attributes include a mood being experienced by said user.

12. (Previously Presented) A recommendation system according to claim 9, wherein said program recommendations are based on the programs with the greatest number of attributes included in said sets.

13. (Cancelled)

14. (Previously Presented) A recommendation system according to claim 73, wherein said program recommendations are further based on the programs with the greatest number of attributes included in said sets.

15 to 16. (Cancelled)

17. (Currently Amended) A computer program product, having a computer readable medium, having a computer program recorded therein, for enabling a selection of a program for viewing in a television system, the computer program product comprising:

computer program code for recording attributes associated with each program selected by a user in the television system, said attributes comprising first attributes associated with characteristics of said programs and second attributes associated with the user at a time the programs are selected, wherein said first attributes are made available as Electronic Program Guide (EPG) data;

computer program code for forming sets of said attributes in response to said user selecting at least two of said programs having shared attributes, wherein each of said sets comprise ~~comprises~~ at least two of said attributes; and

computer code for, upon entry of a user request for a program recommendation, performing a search for programs with attributes that include all the attributes of at least one of said sets, and notifying said user of an availability of programs that include all the attributes of at least one of said sets as program recommendations.

18. (Cancelled)

19. (Previously Presented) A computer program product according to claim 17, wherein said second attributes include a mood being experienced by said user.

20. (Previously Presented) A computer program product according to claim 17, wherein said program recommendations are based on the programs with the greatest number of attributes included in said sets.

21. (Cancelled)

22. (Previously Presented) A computer program product according to claim 76, wherein said program recommendations are further based on the programs with the greatest number of attributes included in said sets.

23 to 24. (Cancelled)

25. (Withdrawn) A method of making recommendations to a user of programs for viewing in a television system wherein;

information regarding programs is made available as EPG (Electronic Program Guide) data including at least one program guide list;

a plurality of characteristics associated with each program previously viewed by said user, and each of a plurality of relationships and corresponding measures of acceptance of said user, with respect to program recommendations made in response to previous program requests, have been recorded;

said method comprising the steps of,

forming sets of said characteristics;

selecting from said relationships at least one relationship, wherein at least one of said selected relationships comprises a highest one of said measures of acceptance;  
ordering said sets of characteristics using said selected relationship to produce ordered sets of characteristics;  
filtering said ordered sets of characteristics using said selected relationship to produce filtered sets of characteristics;  
performing a search of the EPG data for programs with characteristics that best match said filtered sets of characteristics, giving preference to highest filtered sets of characteristics; and  
notifying said user of an availability of programs that best match said filtered sets as program recommendations upon entry of a user request for program recommendations.

26. (Withdrawn) A method as claimed in claim 25, wherein each said set comprising a plurality of said characteristics.

27. (Withdrawn) A method, as claimed in claim 25, comprising the further step of updating said measure of acceptance.

28. (Withdrawn) A method as claimed in claim 27, wherein each of said relationships comprises a combination of at least a first type relationship and a second type relationship, said measure of said first type relationship being updated as a result of user selections made over an extended period of time and said measure of said second type

relationship being updated as a result of user selections made over a shorter period of time.

29. (Withdrawn) A method as claimed in claim 28, wherein each of said relationships comprises a combination of said first type relationship having a maximum measure of acceptance and all second type relationships.

30. (Withdrawn) A method as claimed claim 25, wherein said relationships are user specific.

31. (Withdrawn) A method as claimed claim 25, wherein each, of said sets of characteristics has associated therewith a frequency of occurrence of each said set in programs previously viewed by said user.

32. (Withdrawn) A method as claimed claim 25, wherein each of said sets of characteristics has associated therewith a date, said date being indicative of when each said set occurred in programs previously viewed by said user.

33. (Withdrawn) A method as claimed in claim 25 or 26, wherein each of said relationships are defined by a filtering and an ordering command.

34. (Withdrawn) A method as claimed in claim 33; wherein said filtering command is selected from the list including TimeSlot Filter, WeightFactor Filter, Popularity Filter, Urgency Filter and LifeStyle Filter as herein defined.

35. (Withdrawn) A method as claimed in claim 34, wherein:

said TimeSlot Filter depends on a day or time being suitable that for which recommendations are requested, said day or time being comprised in said sets of characteristics and indicative of when each said set occurred in programs previously viewed by said user;

said WeightFactor Filter depends on a frequency of occurrence of each said set in programs previously viewed by said user;

said Popularity Filter depends on a popularity value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to a popular event/program;

said Urgency Filter depends on an urgency value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to an urgent program; and

said LifeStyle Filter depends on a lifestyle value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to a type of a lifestyle.

36. (Withdrawn) A method as claimed in claim 33, wherein said ordering command is selected from the list including WeightFactor Ordering, Recency Ordering, WeightRecency Ordering as herein defined.

37. (Withdrawn) A method as claimed in claim 36, wherein:



said WeightFactor Ordering arranges said sets of characteristics by descending a frequency of occurrence of each said set in programs previously viewed by said user;

said Recency Ordering arranges said sets of characteristics by descending a date being comprised in said sets of characteristics and indicative of when each said set occurred in programs previously viewed by said user; and

said WeightRecency Ordering arranges said sets of characteristics by descending said frequency of occurrence, while preferring set of characteristics having most recent date when said frequency are the same.

38. (Withdrawn) A method as claimed in claim 26, wherein each of said relationships are defined by filtering and an ordering command, said ordering command being selected from the list including WeightFactor Ordering, Specificity Ordering, Generality Ordering, Recency Ordering, WeightRecency Ordering, Specificity Weight Ordering, Generality Weight Ordering, Recency Specificity Ordering, Specificity Recency Ordering and Generality Recency Ordering as herein defined.

39. (Withdrawn) A method as claimed in claim 38, wherein:

said WeightFactor Ordering arranges said sets of characteristics by descending a frequency of occurrence of each said set in programs previously viewed by said user;

said Specificity Ordering arranges said sets of characteristics by descending a specificity level corresponding to the number of said characteristics being comprised in said set;

said Generality Ordering arranges said sets of characteristics by ascending a specificity level;

said Recency Ordering arranges said sets of characteristics by descending a date being comprised in said sets of characteristics and indicative of when each said set occurred in programs previously viewed by said user;

said WeightRecency Ordering arranges said sets of characteristics by descending said frequency of occurrence, while giving preference to set of characteristics having most recent data when said frequency are the same;

said Specificity Weight Ordering arranges said sets of characteristics by descending said specificity level, while giving preference to set of characteristics having higher frequency of occurrence when said specificity level are the same;

said Recency Specificity Ordering arranges said sets of characteristics by descending said date, while giving preference to set of characteristics having higher specificity level when said date are the same;

said Specificity Recency Ordering arranges said sets of characteristics by descending said specificity level, while giving preference to set of characteristics having most recent date when said specificity level are the same; and

said Generality Recency Ordering arranges said sets of characteristics by ascending said specificity level, while giving preference to set of characteristics having most recent date when said specificity level are the same.

40. (Withdrawn) A recommendation system for making recommendations to a user of programs for viewing in a television system in which information regarding programs is made available as EPG (Electronic Program Guide) data including at least one program guide list, the system comprising:

a first memory means for recording a plurality of characteristics associated with each program previously viewed by said user;

a second memory means for recording each of a plurality of relationships and corresponding measures of acceptance of said user, with respect to program recommendations made in response to previous program requests;

processing means for forming sets of said characteristics;

task selection means for selecting from said relationships at least one relationship, wherein at least one of said selected relationships comprises a highest one of said measures of acceptance;

ordering means for ordering said sets of characteristics using said selected relationship to produce ordered sets of characteristics;

filtering means for filtering said ordered sets of characteristics using said selected relationship to produce filtered sets of characteristics;

searching means performing a search of the EPG data for programs with characteristics that best match said filtered sets of characteristics, giving preference to highest filtered sets of characteristics; and

on-screen display means for notifying said user of an availability of programs that best match said filtered sets as program recommendations upon entry of a user request for program recommendations.

41. (Withdrawn) A recommendation system as claimed in claim 40, wherein each said set comprising a plurality of said characteristics.

42. (Withdrawn) A recommendation system as claimed in claim 40, further comprising a update means for updating said measures of acceptance.

43. (Withdrawn) A recommendation system as claimed in claim 42, wherein each of said relationships comprises a combination of at least a first type relationship and a second type relationship, said measure of said first type relationship being updated as a result of user selections made over an extended period of time and said measure of said second type relationship being updated as a result of user selections made over a shorter period of time.

44. (Withdrawn) A recommendation system as claimed in claim 43, wherein each of said relationships comprises a combination of said first type relationship having a maximum measure of acceptance and all second type relationships.

45. (Withdrawn) A recommendation system as claimed in claim 40, wherein said relationships are user specific.

46. (Withdrawn) A recommendation system as claimed in claim 40, wherein each of said sets of characteristics has associated therewith a frequency of occurrence of each said set in programs previously viewed by said user.

47. (Withdrawn) A recommendation system as claimed in claim 40, wherein each of said sets of characteristics has associated therewith a date, said date being indicative of when each said set occurred in programs previously viewed by said user.

48. (Withdrawn) A recommendation system as claimed in claim 40 or 41, wherein each of said relationships are defined by a filtering and a ordering command.

49. (Withdrawn) A recommendation system as claimed in claim 48, wherein said filtering command is selected from the list including TimeSlot Filter, WeightFactor Filter, Popularity Filter, Urgency Filter and LifeStyle Filter, as herein defined

50. (Withdrawn) A recommendation system as claimed in claim 49, wherein:

said TimeSlot Filter depends on a day or time being suitable that for which recommendations are requested, said day or time being comprised in said sets of characteristics and indicative of when each said set occurred in programs previously viewed by said user;

said WeightFactor Filter depends on a frequency of occurrence of each said set in programs previously viewed by said user,

said Popularity Filter depends on a popularity value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to a popular event/program.

said Urgency Filter depends on an urgency value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to an urgent program; and

said LifeStyle Filter depends on a lifestyle value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to a type of a lifestyle.

51. (Withdrawn) A recommendation system as claimed in claim 48, wherein said ordering command is selected from the list including WeightFactor Ordering, Recency Ordering, WeightRecency Ordering as herein defined.

52. (Withdrawn) A recommendation system as claimed in claim 51, wherein:

said WeightFactor Ordering arranges said sets of characteristics by descending a frequency of occurrence of each said set in programs previously viewed by said user;

said Recency Ordering arranges said sets of characteristics by descending a date being comprised in said sets of characteristics and indicative of when each said set occurred in programs previously viewed by said user; and

said WeightRecency Ordering arranges said sets of characteristics by descending said frequency of occurrence, while preferring set of characteristics having most recent date when said frequency are the same.

53. (Withdrawn) A method as claimed in claim 41, wherein each of said relationships are defined by filtering and an ordering command, said ordering command being selected from the list including WeightFactor Ordering, Specificity Ordering, Generality Ordering, Recency Ordering, WeightRecency Ordering, Specificity Weight Ordering, Generality Weight Ordering, Recency Specificity Ordering, Specificity Recency Ordering and Generality Recency Ordering as herein defined.

54. (Withdrawn) A recommendation system as claimed in claim 53, wherein:

said WeightFactor Ordering arranges said sets of characteristics by descending a frequency of occurrence of each said set in programs previously viewed by said user;

said Specificity Ordering arranges said sets of characteristics by descending a specificity level corresponding to the number of said characteristics being comprised in said set;

said Generality Ordering arranges said sets of characteristics by ascending a specificity level;

said Recency Ordering arranges said sets of characteristics by descending a date being comprised in said sets of characteristics and indicative of when each said set occurred in programs previously viewed by said user;

said WeightRecency Ordering arranges said sets of characteristics by descending said frequency of occurrence, while giving preference to set of characteristics having most recent data when said frequency are the same;

said Specificity Weight Ordering arranges said sets of characteristics by descending said specificity level, while giving preference to set of characteristics having higher frequency of occurrence when said specificity level are the same;

said Recency Specificity Ordering arranges said sets of characteristics by descending said date, while giving preference to set of characteristics having higher specificity level when said date are the same;

said Specificity Recency Ordering arranges said sets of characteristics by descending said specificity level, while giving preference to set of characteristics having most recent date when said specificity level are the same; and

said Generality Recency Ordering arranges said sets of characteristics by ascending said specificity level, while giving preference to set of characteristics having most recent date when said specificity level are the same.

55. (Withdrawn) A computer program product, having a computer readable medium, having a computer program recorded therein, for making recommendations to a user of programs for viewing in a television system wherein:

information regarding programs is made available as EPG (Electronic Program Guide) data including at least one program guide list;

a plurality of characteristics associated with each program previously viewed by said user, and each of a plurality of relationships and corresponding measures of acceptance of said user, with respect to program recommendations made in response to previous program requests, have been recorded;

said computer program product comprising:



code for forming sets of said characteristics;

code for selecting from said relationships at least one relationship, wherein at least one of said selected relationships comprises a highest one of said measures of acceptance;

code for ordering said sets of characteristics using said selected relationship to produce ordered sets of characteristics;

code for filtering said ordered sets of characteristics using said selected relationship to produce filtered sets of characteristics;

code for performing a search of the EPG data for programs with characteristics that best match said filtered sets of characteristics, giving preference to highest filtered sets of characteristics; and

code for notifying said user of an availability of programs that best match said filtered sets as program recommendations upon entry of a user request for program recommendations.

56. (Withdrawn) A computer program product as claimed in claim 55, wherein each said set comprising a plurality of said characteristics.

57. (Withdrawn) A computer program product as claimed in claim 55, further comprising code for updating said measure of acceptance.

58. (Withdrawn) A computer program product as claimed in claim 57, wherein each of said relationships comprises a combination of at least a first type

relationship and a second type relationship, said measure of said first type relationship being updated as a result of user selections made over an extended period of time and said measure of said second type relationship being updated as a result of user selections made over a shorter period of time.

59. (Withdrawn) A computer program product as claimed in claim 58, wherein each of said relationships comprises a combination of said first type relationship having a maximum measure of acceptance and all second type relationships.

60. (Withdrawn) A computer program product as claimed in claim 55, wherein said relationships are user specific.

61. (Withdrawn) A computer program product as claimed in claim 55, wherein each of said sets of characteristics has associated therewith a frequency of occurrence of each said set in programs previously viewed by said user.

62. (Withdrawn) A computer program product as claimed in claim 55, wherein each of said sets of characteristics has associated therewith a date, said date being indicative of when each said set occurred in programs previously viewed by said user.

63. (Withdrawn) A computer program product as claimed in any one of claims 55 or 56, wherein each of said relationships are defined by a filtering and a ordering command.

64. (Withdrawn) A computer program product as claimed in claim 63, wherein said filtering command is selected from the list including TimeSlot Filter, WeightFactor Filter, Popularity Filter, Urgency Filter and LifeStyle Filter as herein defined.

65. (Withdrawn) A computer program product as claimed in claim 64, wherein:

said TimeSlot Filter depends on a day or time being suitable that for which recommendations are requested, said day or time being comprised in said sets of characteristics and indicative of when each said set occurred in programs previously viewed by said user;

said WeightFactor Filter depends on a frequency of occurrence of each said set in programs previously viewed by said user, said Popularity Filter depends on a popularity value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to a popular event/program.

said Urgency Filter depends on an urgency value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to an urgent program; and

said LifeStyle Filter depends on a lifestyle value being comprised in said sets of characteristics and indicative that each program previously viewed by said user corresponds to a type of a lifestyle.

66. (Withdrawn) A computer program product as claimed in claim 63, wherein said ordering command is selected from the list including WeightFactor Ordering, Recency Ordering, WeightRecency Ordering as herein defined.

67. (Withdrawn) A computer program product as claimed in claim 66, wherein:

said WeightFactor Ordering arranges said sets of characteristics by descending a frequency of occurrence of each said set in programs previously viewed by said user;

said Recency Ordering arranges said sets of characteristics by descending a date being comprised in said sets of characteristics and indicative of when each said set occurred in programs previously viewed by said user; and

said WeightRecency Ordering arranges said sets of characteristics by descending said frequency of occurrence, while preferring set of characteristics having most recent date when said frequency are the same.

68. (Withdrawn) A computer program product as claimed in claim 66, wherein each of said relationships are defined by filtering and an ordering command, said ordering command being selected from the list including Weightfactor Ordering, Specificity Ordering, Generality Ordering, Recency Ordering, WeightRecency Ordering, Specificity Weight Ordering, Generality Weight Ordering, Recency Specificity Ordering, Specificity Recency Ordering and Generality Recency Ordering as herein defined.

69. (Withdrawn) A computer program product as claimed in claim 68,  
wherein:

said WeightFactor Ordering arranges said sets of characteristics by  
descending a frequency of occurrence of each said set in programs previously viewed by  
said user;

said Specificity Ordering arranges said sets of characteristics by descending  
a specificity level corresponding to the number of said characteristics being comprised in  
said set;

said Generality Ordering arranges said sets of characteristics by ascending a  
specificity level;

said Recency Ordering arranges said sets of characteristics by descending a  
date being comprised in said sets of characteristics and indicative of when each said set  
occurred in programs previously viewed by said user;

said WrightRecency Ordering arranges said sets of characteristics by  
descending said frequency of occurrence, while giving preference to set of characteristics  
having most recent data when said frequency are the same;

said Specificity Weight Ordering arranges said sets of characteristics by  
descending said specificity level, while giving preference to set of characteristics having  
higher frequency of occurrence when said specificity level are the same;

said Recency Specificity Ordering arranges said sets of characteristics by  
descending said date, while giving preference to set of characteristics having higher  
specificity level when said date are the same;

said Specificity Recency Ordering arranges said sets of characteristics by descending said specificity level, while giving preference to set of characteristics having most recent date when said specificity level are the same; and

said Generality Recency Ordering arranges said sets of characteristics by ascending said specificity level, while giving preference to set of characteristics having most recent date when said specificity level are the same.

70. (Previously Presented) A method according to claim 1, comprising the further step of:

associating a value with each set, said value representing the number of programs selected by said user including the attributes in said set, wherein said search is performed for programs with attributes that include the attributes of the set with a highest value.

71. (Previously Presented) A method according to claim 1, wherein said second attributes further include information associated with the viewing of programs.

72. (Previously Presented) A method according to claim 71, wherein said information associated with the viewing includes one or more of time of day and day of week information.

73. (Previously Presented) A recommendation system according to claim 9, further comprising:

means for associating a value with each set, said value representing the number of programs selected by said user including the attributes in said set, wherein said search is performed for programs with attributes that include the attributes of the set with a highest value.

74. (Previously Presented) A recommendation system according to claim 9, wherein said second attributes further include information associated with the viewing of programs.

75. (Previously Presented) A recommendation system according to claim 74, wherein said information associated with the viewing includes one or more of time of day and day of week information.

76. (Previously Presented) A computer program according to claim 17, further comprising:

computer program code for associating a value with each set, said value representing the number of programs selected by said user including the attributes in said set, wherein said search is performed for programs with attributes that include the attributes of the set with a highest value.

77. (Previously Presented) A computer program according to claim 17, wherein said second attributes further include information associated with the viewing of programs.

78. (Previously Presented) A computer program according to claim 77, wherein said information associated with the viewing includes one or more of time of day and day of week information.